CHAPTER 5

Indirect Costs

5.1 General. Indirect costs are those costs, which cannot be attributed to a single task of construction work. These costs include the prime contractor markups such as overhead, profit, bond, and certain taxes. Indirect costs are also referred to as distributed costs. The following discussions present the indirect costs in the order they are applied within the prime contractor markup structure. This is critical, because the values typically are compounded rates applied against the previous rates.

5.2 Overhead Costs.

5.2.1 Overhead costs are those costs that cannot be attributed to a single task of construction work. Costs, which can be applied to a particular item of work, should be considered a direct cost to that item and are not to be included in overhead costs.

5.2.2 For large civil works projects, the various tasks for overhead should be developed for each project rather than using flat overhead percentage rates. Flat rates may be used during the preliminary studies or when alternatives must be prepared if design is limited or not available.

5.2.3 The overhead costs are customarily divided into two categories:

5.2.3.1 JOOH also referred to as general conditions or field office overhead.

5.2.3.2 General home office overhead commonly referred to as general and administrative (G&A) costs or home office overhead (HOOH).

5.2.4 Duplication of Overhead Costs. The cost engineer must be sure that overhead costs are not duplicated between the two categories. Because of the nature of overhead costs, it is not practical to discuss all overhead items. Specific considerations must be carefully evaluated for each project. The cost engineer must use considerable care and judgment in estimating overhead costs. Many indirect cost items are frequently described in the General Requirements Section (Construction Specification Institute Division 01) of the contract specifications. If not related to a specific work task, these costs must be identified and appropriately assigned as overhead costs.

5.2.5 Previously Determined Overhead Rates. The application of a previously determined overhead rate for either category may be used for early project phases, but it is not an accurate or reliable method of forecasting costs. Overheads will vary from project to project and may even vary from month to month within any given project.

JOOH items for the prime contractor should be estimated in detail for all IGEs. Detailing of JOOH costs for subcontract work is recommended when the impact of these costs is significant.

5.2.6 Job Office Overhead. JOOH costs are those costs at the project site that occur specifically as a result of the particular project. In early estimate stages, a percentage near 5 percent is acceptable; however, from feasibility level forward, a detailed estimate should be developed. Table 5-1 provides general descriptions of typical costs encountered and appendix J is a template listing more detail; however, each project should be considered on its own merit.

Table 5-1. Job Office Overhead Costs

ADMINISTRATION JOB OFFICE
Includes all field administrating, accounting, purchasing, inventory, and security personnel and expenses. Also, consider subsistence and travel, offices, vehicles, supplies, and miscellaneous items to run the field office. Subsistence amounts may vary depending upon seniority and job classification.
WAREHOUSE AND MATERIALS HANDLING
Includes all field warehouses, stockyards, personnel, and equipment to handle, receive, unload, store, and transport materials around the project site. Also, consider subsistence and travel, vehicles, supplies, and miscellaneous cost items.
ENGINEERING AND SURVEYING
Includes all engineering, drafting, submittals, scheduling, surveying, and change order personnel. Also, consider subsistence and travel, vehicles, miscellaneous computer expenses, shop drawings, submittals and Critical Path Method schedules, operation and maintenance manuals, and miscellaneous cost items. **Note:** Personnel costs and supplies may cover submittal development and required contract document costs.
QUALITY CONTROL AND TESTING
Includes personnel, vehicles, equipment, and supplies to produce all QC reports, QC inspections, and all other contract quality requirements. Also, consider subsistence and travel, vehicles, supplies, and miscellaneous cost items. **Note:** Personnel costs and supplies may cover submittal development and required contract document costs.
SAFETY, TRAFFIC CONTROL, FIRST AID, AND FIRE
Includes all personnel, supplies, and vehicles needed for safety, traffic control, first aid, safety training, and fire prevention. Also, consider subsistence and travel, vehicles, supplies, and miscellaneous cost items. **Note:** Personnel costs and supplies may cover submittal and required contract document costs.

SANITATION FACILITIES AND TEMPORARY BUILDINGS
Includes all sanitation facilities miscellaneous, buildings, yards, and building costs not otherwise classified. This grouping does not include all project utilities costs.
GENERAL EQUIPMENT EXPENSES
Includes equipment not required by specific work items. Also, consider testing and rental of equipment when not charged to a specific bid item or items of work. Inspection fees and permits are included in mobilization and demobilization items.
PROJECT UTILITIES SITE AND CLEANUP
Includes all project costs not otherwise classified.
WINTERIZE PROJECT
Includes all items needed for a winter shutdown of the project or for construction activities during the winter months.
CAMP FACILITIES, WORKER SUBSISTENCE, AND TRAVEL
Includes costs to operate a camp to support construction workers. If no camp is furnished and subsistence is not included in the worker's hourly wage, show the number of subsistence days and daily cost. However, it is preferred to include subsistence with the hourly wage. Also, consider kitchens, camp vehicles, supplies, and miscellaneous items.
INSURANCE, INTEREST, PERMITS, AND FEES
Includes insurance costs, permits, and fees required by the contract. Business and occupation taxes, tribal taxes, and bid bond cost are not included in the JOOH but are included in other indirect cost markups.
MOBILIZATION AND PREPARATORY WORK (Optional)
Includes all items needed for the contractor mobilization and site preparatory work. Also, consider trucks, trailers, pilot cars, inspection fees, highway permits, loading, unloading, equipment standby and setup, and surveys. *USE ONLY if the project does NOT have a mobilization bid item.*
DEMOBILIZATION WORK (Optional)
Includes all items needed for contractor's demobilization from the project site and halfway to another project. Also, consider trucks, trailers, pilot cars, inspection fees, highway permits, loading, unloading, equipment standby, and take down. *USE ONLY if the project does NOT have a demobilization bid item.*
GOVERNMENT INSPECTION COSTS (In Alaska only)
Includes all items needed to keep Government Inspectors on site excluding salary.

5.2.7 General Home Office Overhead

5.2.7.1 G&A expenses are those incurred by the contractor in the overall management of business associated with all costs at the home office. These overhead expenses are not incurred for any one specific project and must be apportioned to all the contractor’s projects.

5.2.7.2 Many expenses such as interest and entertainment are not allowable. Construction equipment depreciation is included in the EP 1110-1-8 cost rates and should not be included in the G&A rate. An accurate percentage of G&A can only be determined by an audit. On major changes requiring an audit, it is important to request that the G&A rate be determined through the contracting officer.

5.2.7.3 Of all the categories of costs, the contractor's G&A costs are the least definable. Each contractor organizes his company differently from any other. Each incurs costs differently from varying sources and manages operations of that home office by their own methodology. There may be more than one home office employed. It is important to understand that home office costs are not standard and fixed. Even though the cost for a specific contractor varies from period to period, a rate is normally averaged as a computation of total home office costs over a sufficient period divided by the total volume of business during that specific period. This rate computation methodology allows distribution and projection to future project estimates. When more specific data is not available, the cost engineer may include empirical rates. Home office costs are typically included in the estimate of overhead as the product of an average experienced percentage rate times the expected contract amount. Typical categories of HOOH are:

- Main office building, furniture, equipment, etc.
- Fabrication shop and yard.
- Management and office staff salary and expense.
- Main office utilities.
- General communications and travel.
- Main office supplies.
- Corporate vehicles.
- General business insurance.
- Taxes.

5.2.8 Duration of Overhead Items. After the overhead items have been listed, a cost must be determined for each. Each item should be evaluated separately. Some items such as erection of the project office may occur only once in the project. The cost engineer should utilize the developed job schedule in estimating duration requirements. Costs reflective of each particular item during the scheduled period should then be applied. The product of duration and unit cost is the overhead cost for the item. In the

case of construction modifications, overhead should be re-addressed as related to the cost items and durations in the original contract.

5.2.9 Sources for Pricing. The cost engineer must rely on judgment, historical data, and current labor market conditions to establish overhead costs. Sources for information can be obtained from current or past contractor's bid data and audits. Other sources include previously negotiated modifications and review of organizational charts of construction firms for staffing and overhead costs evaluation. Overhead salaries should include an allowance for payroll taxes and fringes such as Federal Insurance Contributions Act, health benefits, and vacation.

5.2.10 Distribution of Overhead. The prime contractor's overhead costs, which have been costed in an organized format, should be summed and distributed to the various bid items. A proportionate distribution is commonly made by percentage ratio of total direct costs to those direct costs in each item. When additive, option, or split-bid items are included, only those overhead costs that relate directly to the additive work should be distributed to those additive items. Those overhead costs, which the contractor will incur regardless of additive or deductive items, should be distributed to base bid schedule items only. Selective distribution ensures recoupment of costs if only the basic contract scope is awarded. Regardless of the method of distribution, the estimates should clearly demonstrate the procedures and cost principles applied. As a refinement to distribution, the cost engineer may reasonably and justifiably reduce the prime overhead distribution on subcontract work items. The balance of the total prime overhead should then be distributed as discussed above to the remaining prime items of work. For modification estimates, overhead requirements should be itemized and costed to reflect the actual net change in cost of overhead, i.e., costs before and after the modification work.

5.3 Profit.

5.3.1 Profit is defined as a return on investment. It is what provides the contractor with an incentive to perform the work as efficiently as possible. The proper approach to use will depend on the type of contractual acquisition action and the supplemental regulations that apply to the type of contract activity. For example, A-E contracting profit is calculated differently than construction profit. Refer to FAR, Subpart 15.404-4, prescribing the use of a structured approach for determining the profit or fee objective for construction projects. Consultation may be in order with the contracting officer in regards to profit application for various procurement actions.

5.3.2 The DFAR, Subpart 215.404-4, prescribes three structured approaches for determining a profit or fee objective on any negotiated contract action (with exceptions); the weighted guidelines method, the modified weighted guidelines method, and an alternate structured approach. Generally ,the latter two are for contract actions

with nonprofit organizations and A-E respectively. Construction cost estimating shall use the weighted guideline method and is discussed further in this chapter.

5.3.3 Prime contractor profit is not included in civil works IGEs prepared for contract award. However, prime contractor profit is included in all estimates prepared for programming of funds for projects and for contract modifications. Profit may be included for projects funded by non-Federal users in work for others.

5.3.3.1 Weighted Guidelines Method. The weighted guidelines method yields a reasonable profit value and should be used to determine profit for all contracts that include profit. Since contract modifications are considered contracts, this rule still applies. This methodology should also be used wherever a detailed direct costing method is used for preparing construction estimates. A rate of profit may be used based on historical experience for reconnaissance or comparative estimates for alternative analysis during feasibility studies.

5.3.3.2 Weighted Guideline Factors. Based on the circumstances of each procurement action, each of the factors listed in table 5-2 will be weighted from 0.03 to 0.12 as discussed in the following text and provided in figure 5-1. Statements in sufficient detail to explain the reasons for assigning the specific weights shall be included on the profit computation sheet. The value will then be obtained by multiplying the rate column by the weight column. The value column when totaled indicates the fair and reasonable profit percentage.

- Degree of risk. Where the work involves no risk or the degree of risk is very small, the weighting should be 0.03; as the degree of risk increases, the weighting should be increased up to a maximum of 0.12. Lump sum items will have, generally, a higher weighted value than unit price items for which quantities are provided. Other things to consider include the nature of work; where the work is to be performed; the reasonableness of negotiated costs; the amount of labor included in the costs; and whether the negotiation occurs before or after the period of performance of work.
- Relative difficulty of work. If the work is difficult and complex, the weighting should be 0.12 and should be proportionately reduced to 0.03 on the simplest of jobs. This factor is tied in to some extent with the degree of risk. Some things to consider include technical nature of the work by whom work is to be done; location of work; and time schedule.
- Size of the job. Work not in excess of $100,000 will be weighted at 0.12. Work estimated between $100,000 and $5,000,000 will be proportionately weighted from 0.12 to 0.05. Work from $5,000,000 to $10,000,000 shall be weighted at 0.04 and work in excess of $10,000,000 at 0.03.
- Period of performance. Jobs in excess of 24 months are to be weighted at 0.12. Jobs of lesser duration are to be proportionately weighted to a minimum

of 0.03 for jobs not to exceed 30 days. No weight is given for modification estimates when additional performance time is not required.

- Contractor's investment. Jobs are to be weighted from 0.03 to 0.12 on the basis of below average, average to above average of contractor investment. Things to consider include amount of subcontracting; mobilization payment item; Government-furnished property; method of making progress payments; and front-end requirements of the job.
- Assistance by Government. Jobs are to be weighted from 0.12 to 0.03 on the basis of below average to above average. Things to consider include use of Government-owned property, equipment and facilities, and expediting assistance.
- Subcontracting. Jobs are to be weighted inversely proportional to the amount of subcontracting. Where 80 percent or more of the work is to be subcontracted, the weighting is to be 0.03 and such weighting proportionately increased to 0.12 where all work is performed by the contractor's own forces.

5.3.4 Separate Profit Calculation. A separate profit calculation should be performed for the prime contractor and for each subcontractor. When the subcontractor assumes the risk and responsibility for significant portions of the work, the prime contractor's profit rate on that work should be decreased. As a general rule, profit is applied as a percentage rate to the total of all costs required by the contract or modification scope. For early design stage estimates, a rate of profit may be assumed based on past experience.

Weighted Guidelines Profit Sheet

Project: Estimated By:

Contract No: Checked By:

Change Order No.: Date 9/14/05

Profit Objective For: (Prime Contractor, Subcontractor)

Factor	Rate (%)		Weight (0.03 - 0.12)		Value
1. Degree of Risk		x		=	
2. Difficulty of work		x		=	
3. Size of Job		x		=	
4. Period of Performance		x		=	
5. Contractor's Investment		x		=	
6. Assistance by Government		x		=	
7. Subcontracting		x		=	
	%		Profit Factor		%

COMMENTS (Reasons for Weights Assigned):

1.

2.

3.

4.

5.

6.

7.

Figure 5-1. Weighted Guidelines Profit Sheet

Table 5-2. Factors for Profit Determination

FACTOR 1	Degree of Risk (Judgmental)	
	Degree	Weight
	Small	0.03
	High	0.12

FACTOR 2	Relative Difficulty of Work (Judgmental)	
	Degree	Weight
	Difficult	0.12
	Simple	0.03

FACTOR 3	Size of Job					
Value (x 1000)			Weight	Value (x 1000)			Weight
$ 0	to	100	0.120	$ 2,701	to	2,800	0.081
101	to	200	0.119	2,801	to	2,900	0.080
201	to	300	0.117	2,901	to	3,000	0.079
301	to	400	0.116	3,001	to	3,100	0.077
401	to	500	0.114	3,101	to	3,200	0.076
501	to	600	0.113	3,201	to	3,300	0.074
601	to	700	0.111	3,301	to	3,400	0.073
701	to	800	0.110	3,401	to	3,500	0.071
801	to	900	0.109	3,501	to	3,600	0.070
901	to	1,000	0.107	3,601	to	3,700	0.069
1,001	to	1,100	0.106	3,701	to	3,800	0.067
1,101	to	1,200	0.104	3,801	to	3,900	0.066
1,201	to	1,300	0.103	3,901	to	4,000	0.064
1,301	to	1,400	0.101	4,001	to	4,100	0.063
1,401	to	1,500	0.100	4,101	to	4,200	0.061
1,501	to	1,600	0.099	4,201	to	4,300	0.060
1,601	to	1,700	0.097	4,301	to	4,400	0.059
1,701	to	1,800	0.096	4,401	to	4,500	0.057
1,801	to	1,900	0.094	4,501	to	4,600	0.056
1,901	to	2,000	0.093	4,601	to	4,700	0.054
2,001	to	2,100	0.091	4,701	to	4,800	0.053
2,101	to	2,200	0.090	4,801	to	4,900	0.051
2,201	to	2,300	0.089	4,901	to	5,000	0.050
2,301	to	2,400	0.087	5,001	to	10,000	0.040
2,401	to	2,500	0.086				
2,501	to	2,600	0.085	Over		10,000	0.030
2,601	to	2,700	0.084				

Table 5-2. Factors for Profit Determination (Cont.)

FACTOR 4	Period of Performance	Weight
	23 to 24 Months	0.120
	22 to 23 Months	0.116
	21 to 22 Months	0.112
	20 to 21 Months	0.109
	19 to 20 Months	0.105
	18 to 19 Months	0.101
	17 to 18 Months	0.098
	16 to 17 Months	0.094
	15 to 16 Months	0.090
	14 to 15 Months	0.086
	13 to 14 Months	0.082
	12 to 13 Months	0.079
	11 to 12 Months	0.075
	10 to 11 Months	0.071
	9 to 10 Months	0.068
	8 to 9 Months	0.064
	7 to 8 Months	0.060
	6 to 7 Months	0.056
	5 to 6 Months	0.052
	4 to 5 Months	0.049
	3 to 4 Months	0.045
	2 to 3 Months	0.041
	1 to 2 Months	0.038
	Under 30 Days	0.034
		0.030

FACTOR 5	Contractor's Investment (Judgmental)	
	Degree	Weight
	Below average	0.03
	Average	0.07
	Above average	0.12

FACTOR 6	Assistance by Government (Judgmental)	
	Degree	Weight
	Below average	0.12
	Average	0.07
	Above average	0.03

Table 5-2. Factors for Profit Determination (Cont.)

FACTOR 7	
Percent of Subcontracting	**Weight**
80% or more	0.030
70% to 80%	0.042
60% to 70%	0.055
50% to 60%	0.068
40% to 50%	0.080
30% to 40%	0.092
20% to 30%	0.105
10% to 20%	0.118
0	0.120

5.4 Surety Bonds. Surety bonds are three-way agreements between a bidder or contractor (the principal), and a second party (the surety), to assure fulfillment of the principal's obligations to a third party (the obligee). If the principal obligations are not met, the bond assures payment to the extent stipulated of any loss sustained by the obligee. In most Government construction contracts, the three parties are as follows:

Three Parties	Under General Contract	Under Subcontract
1. Principal	Contractor	Subcontractor
2. Obligee	Government	Contractor
3. Surety	Surety	Surety

5.4.1 Types of Bonds. The purpose of surety bonds varies with the type of bond:

5.4.1.1 Bid Bonds or Bid Guarantee. These types of bonds provide an assurance that the bidder will not withdraw his bid within the specified period for acceptance and will execute a written contract and furnish the required bonds if the bid is accepted.

5.4.1.2 Payment Bonds. A payment bond assures payments to all persons supplying labor or material of the work provided for in the contract. These type of bonds protect subcontractors, suppliers, and laborers against nonpayment by the prime contractor.

5.4.1.3 Performance Bonds. A performance bond ensures the contractor will complete the project as specified and for the agreed price. It does not shift responsibility for administering the contract to the surety. A performance bond provides a financial guarantee for the work and provides the contractor with a method of freeing his working capital and other assets, which might otherwise be tied up by other forms of surety such as certified checks, retainage, or deposits.

5.4.2 Surety Bond Requirements

5.4.2.1 The amount included in the estimate should be based on the contract requirements, the bond rules, premium rates, and, if known, the actual contractor bond cost. A bid guarantee is required on Federal projects whenever a performance bond and/or a payment bond is mandated. Performance and payment bonds are required for all construction contracts of $100,000 or more and some form of payment guarantee for lesser value contracts (FAR 28.102). For contracts under $100,000, Congress directed agencies to develop alternatives to surety bonds for contracts between $25,000 and $100,000. These statutory requirements are implemented in FAR part 28.

5.4.2.2 The cost of all performance bonds, payment bonds, and other types of bonds determined to be appropriate by the cost engineer are allowable costs.

5.4.3 Classes of Bonds. Bonds are classified as Class A, Class B, or Class A-1, depending on the type of construction to be performed. Most types of civil works projects are classified as Class B. Table 5-3 illustrates the various types and classes of bonds.

Table 5-3. Classes of Bonds

CLASS A (Contracts for furnishing and installing, or installing only, certain services or equipment)		
Airport runways	Greenhouses	Ski lifts
Aluminum siding	High-pressure power piping	Sprinkler systems
Athletic fields	Janitorial service	Stone (furnishing, delivering only)
Beacon or floodlights	Machinery made to special order	Storage tanks metal
Burial contracts	Map making	Tennis courts
Ceilings (metal or acoustical tile)	Millwork	Water carnage of freight
Certain walls (nonstructural)	Murals	Water proofing (except with gunite)
Coal storage	Parking areas	Wind tunnels
Ducts (underground power, light, phone)	Planting and cultivation of land	
Elevators/escalators	Playgrounds and parks	

Table 5-3. Classes of Bonds (Cont.)

CLASS B		
Airport buildings	Gas piping	Sand blasting
Aqueducts	Golf courses	Sculptures
Atomic energy plants	Grain elevators	Sea walls
Breakwaters	Gunite contracts	Sewage disposal plants
Canals and canal lining	Heating systems	Sewers/septic tanks
Carpentry	Hospital buildings	Shipyards
Coal stripping	Incinerators	Spillways
Commercial buildings	Industrial buildings and plants	Stone
Concrete work	Jetties	Subways
Dams	Landscaping	Swimming pools
Dikes	Locks	Terminals-buses
Ditches	Masonry	Test boring
Docks and drydocks	Missile installations	Tile and terrazzo
Drilling contracts	Nuclear reactors	Transmission or distribution lines
Educational buildings	Office buildings	Tunnels
Electrical	Offshore platforms	Underwater cables
Embankments	Painting	Ventilation systems
Excavations	Piers	Water works
Filling stations	Pilings	Wells
Filtering plans	Pipelines for water	Wharves
Fountains	Plastering	
Garbage disposal plants	Plumbing	
Gasoline cracking plants	Power plants	
Gas compressor stations	Public improvements	
Gas mains and laterals	Railroad roadbeds	
CLASS A-1 (Contracts for furnishing and installing, or installing only, certain services or equipment)		
Arms	Guardrails	Repair of automobiles and trucks
Ash conveyors	Heating	Re-smelting old metal
Automatic strokers	Incinerator operations	Riprap stone (furnishing only)
Automatic telephone exchange and equipment	Insulation contracts	Rolling stock
Automotive service contracts	Kitchen equipment	Scaffolding cost engineer should
Band concerts	Laboratory equipments	Sidewalks
Bird control	Leasing of motor vehicles	Signaling systems on railroads
Boiler re-tubing and repair	Lightning rods	Signs (all)
Bookbinding	Lock gates	Stack rooms
Cataloging	Mail handling machinery	Standpipes
Coal handling machinery	Metal windows and shutters	Street and subway lighting systems
Computers and data processing equipment	Mosquito control contracts	Temporary personnel services
Conveyors	Movies	Thermostat equipment
Data processing and computer works	Office personnel	Tollgates

Table 5-3. Classes of Bonds (Cont.)

Doors/dynamos	Organ repairs	Track laying
Exterminating contracts	Ornamental ironworks	Traffic control systems on highways
Fire alarm systems	Parking meters	Training manuals
Fire escapes	Photogrammetric work	Tree trimming and removal
Flagpoles	Pipelines for oil or gas	Watchmen and signal services
Floats	Police alarm systems	Water towers
Floors	Projectiles	Weather stripping
Furnishing food services	Public address and music systems	Weed mowing
Gas tanks	Radio towers	Window cleaning
Generators	Radiological equipment	Work and Labor
Grain doors, salvage, and disposal	Recapping automobile tires	X-Ray inspections

5.4.4 Determining Bond Rates. If the contract is susceptible to two classifications, normally the higher rate is applicable. Separate contracts take the same classification as a general contract. Neither the classification nor the rate is changed by subdividing the work or by the Government providing certain materials. Subcontracts use the same classifications and rates as general contracts. Bond rates may change and should be verified on an annual basis and verified for the specific locale. A good source for verification is construction branch, which commonly receives the bond rate calculations for specific projects.

5.4.4.1 Non-Deviating States Exceeding 12 months Stipulated Time. For states in conformance (non-deviating) with the Surety Association of America (SAA) rates (table 5-4) where the construction time exceeds the bond stipulated time of 12 months, add 1 percent of the bond premium for each month in excess of 12 months.

5.4.4.2 Deviating States Exceeding Stipulated Time. For states not conforming (deviating) with the SAA rates (table 5-5) where the construction time exceeds the bond stipulated time of 12 months, add one-half percent of the basic premium for each month in excess of 12 months up to 24 months and 1 percent of the basic premium for each month in excess of 24 months.

5.4.4.3 Non-Deviating States Exceeding 24 Months Stipulated Time. For states in conformance (non-deviating) with the SAA rates (table 5-6) where the construction time exceeds the bond stipulated time of 24 months, add 1 percent of the basic premium for each month in excess of 24 months.

5.4.5 Consent of Surety

5.4.5.1 Not required. If the consent of the surety is not required and given for changes or extras, first and renewal premiums for the additional cost thus caused are computed at manual rates from the date of the bond.

5.4.5.2 Required. If the consent of the surety is required and given for changes or extras, premium for the additional cost thus caused, is computed at manual rates from the date of such surety cost.

5.4.6 Cost of Performance and Payment Bonds. Performance and payment bonds are normally obtained as a single package. The premium is the same as for the performance bond alone. Rates vary with the type of the contract work, the dollar value, and the length of the contract.

5.4.6.1 Coverage Limit of Performance Bonds. The coverage limit of performance bonds is specified in each contract and is usually for the full amount of the contract price (bid amount). The premium is adjusted at the completion of the work for any modification changes in the contract price other than changes due to time bonuses or penalties. If the original contract price is increased through change order, the contractor must pay an additional premium. Conversely, if any part of the original work is deleted and the original price thereby reduced, the contractor will receive a refund from the surety.

5.4.6.2 SAA Issues Advisory Rates. It should be noted the surety industry has become a state-regulated industry. The SAA issues advisory rates, but these rates may or may not be accepted by the state involved. Therefore, actual rates charged by surety corporations may vary from state to state.

5.4.6.3 Calculation of Bond Premium Cost. The following example illustrates the calculation of bond premium cost. Since the rates are subject to change and may vary by state, the calculations are to be used as a sample only. The cost engineer is responsible for ensuring the rates used are accurate and current. This example assumes a canal excavation project in Tennessee to be accomplished at an estimated cost of $2.5 million, including profit, with a duration of 11 months. From table 5-3, “excavation” is found in Class B. Referring to the Class B rate schedule in table 5-4, the premium for a performance-payment bond written in the full amount of the contract price (including bond) and by a non-deviating Surety Association Company would be calculated as follows:

Example of Class B Bond Premium Calculation:

Estimated Bond	Amount	x	Rate =	Premium
First	$100,000	x	$25.00/M	$2,500
Next	$400,000	x	$15.00/M	$6,000
Next	$2,000,000	x	$10.00/M	$20,000
Anticipated Estimated Amount (inc. bond)	$2,500,000			$28,500

(20 mos. - 12 mos. = 8 mos. surcharge)

Eight additional months @ 1%/MONTH

(8 mo × 1% × $28,500)	$2,280
TOTAL PREMIUM	$30,780

Table 5-4. Performance and Payment Bond (completion time not over 12 months) with Non-Deviating Rates

Amount of Contract Price		Class B	Class A	Class A-1
First $	100,000	$25.00/M	$15.00/M	$9.40/M
Next	400,000	15.00	10.00	7.20
Next	2,000,000	10.00	7.00	6.00
Next	2,500,000	7.50	5.50	5.00
Next	2,500,000	7.50	5.00	4.50
Over	7,500,000	6.50	4.50	4.00

Note: SAA advisory rates per $1,000 of contract value for all jurisdictions except South Carolina, Louisiana, Delaware, Hawaii, and Arkansas.

Table 5-5. Performance and Payment Bond (completion time not to exceed 12 months) with Deviating Rates

Amount of Contract Price		Class B	Class A	Class A-1
First $	100,000	$10.00/M	$7.50/M	$4.90/M
Next	400,000	8.00	5.50	4.50
Next	2,000,000	7.00	5.00	4.10
Next	2,500,000	6.00	4.40	3.80
Next	2,500,000	5.00	3.80	3.50
Over	7,500,000	4.50	3.25	2.95

Note: Deviating rates from companies that may or may not belong to the SAA and are dependent on competition and contractor net worth. The rates per $1,000 of contract value are typical of a large contractor having a preferred rate structure.

Table 5-6. Performance and Payment Bond (not to exceed 24 months) with Non-Deviating Rates

Amount of Contract Price		Class B	Class A	Class A-1
First $	500,000	$14.40/M	$10.80/M	$7.20/M
Next	2,000,000	8.70	6.72	6.00
Next	2,500,000	6.90	5.28	4.92
Next	2,500,000	6.30	4.92	4.44
Over	7,500,000	5.76	4.44	3.96

Note: Non-deviating SAA advisory rates per $1,000 of contract value are for South Carolina, Louisiana, Delaware, Hawaii, and Arkansas.

5.5 Taxes. Indirect costs may include certain tax applications and are dependent upon the state wherein the project is located. The cost engineer should ensure those taxes are covered within the prime contractor markups, within the indirect costs. Examples include the business and occupation tax and the gross receipts tax. Consideration should be made when applying these rates when profit is not included within the estimate, since these rates are applied on total construction cost, including profit.